

December 6, 2022

The Honorable Janet L. Yellen
U.S. Secretary of the Treasury
Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-58)
Room 5203, P.O. Box 7604
Ben Franklin Station, Washington, D.C., 20044

Re: Notice 2022-58, Request for Comments on Credits for Clean Hydrogen and Clean Fuel Production

Dear Secretary Yellen:

Nature Energy US LLC (“NE”) hereby submits these comments in response to the U.S. Department of the Treasury’s (“Treasury”) above referenced request for comments to issue guidance regarding the clean hydrogen credit provision under new Code¹ Section 45V (the “45V Credit”) and the clean fuel production credit provision under new Code Section 45Z (the “45Z Credit”), in each case as added by Sections 13204 and 13704, respectively, of Public Law 117-169, 136 Stat. 1818 (August 16, 2022), commonly known as the Inflation Reduction Act of 2022 (“IRA”). NE thanks Treasury for the opportunity to comment on aspects of the IRA. NE supports policy that addresses the immediate imperative to reduce greenhouse gas emissions. Incentives in the IRA will stimulate rapid deployment of low carbon energy solutions, positioning the United States for leadership in a diverse portfolio of renewable energy production capabilities.

Founded in 1979, NE has owned and operated renewable natural gas (“RNG”) facilities since 2015. NE’s facilities reduce emissions by converting agricultural waste into carbon negative energy with many possible applications. NE’s facilities have the dual benefit of reducing methane emissions upstream and also displacing higher emission fuels downstream. NE’s agricultural digester facilities have the capacity to operate using multiple waste streams, including crop and food waste, in addition to animal waste, the more commonly used biomass.

As a leader in the agricultural digester RNG industry, NE and its international affiliates have over 400 employees worldwide working with biogas and is one of the world’s largest producers of RNG. Our experience building, operating, and reporting on these assets gives us unique perspective on implementation and administration of greenhouse gas emission based incentive frameworks.

Through the IRA, the Biden Administration, in part, aims to combat climate change, by promoting the development of renewable fuels and reducing greenhouse gas emissions, investing in renewable energy production and manufacturing, and increasing U.S. energy security. To this end, NE requests that Treasury consider the following comments when drafting guidance regarding new Code Sections 45V and 45Z.

¹ All references to the “Code” herein are to the Internal Revenue Code of 1986, as amended and restated.

I. Treasury should carefully delineate where carbon capture equipment begins and ends vis-à-vis other facilities.

Code Section 45Z(a)(1)(A)(i) requires that transportation fuel be produced in a “qualified facility” in order to be eligible for the 45Z Credit, and a qualified facility does not include any facility for which the credit under Code Section 45Q (“Section 45Q Credit) is allowed (i.e., in respect of which the owner of carbon capture equipment installed at a qualified biogas facility has claimed the Section 45Q Credit and Treasury has allowed such claim).² Distinguishing between the definitions of each of these terms—qualified facility for purposes of Code Section 45Z, qualified facility for purposes of Code Section 45Q, and carbon capture equipment—is important when determining which credits may be claimed and is discussed in turn below. Adding to the confusion is that qualified biogas property (for purposes of Code Section 48) may be incorporated into a facility and may also be part of a qualified facility for purposes of Code Section 45Z.

As a starting point, the focus in Code Section 45Q always begins with the capture of carbon using carbon capture equipment and then proceeds to what happens to that carbon. The credit is available in respect of qualified carbon oxides that are captured by “carbon capture equipment” that is installed at a “qualified facility” and then either utilized, used as a tertiary injectant, or disposed of in secure geological storage.³ For this purpose, a “qualified facility” is any industrial facility, including a direct air capture facility, an electricity generating facility and “any other facility,” in each case that meets annual thresholds for carbon capture.⁴ The phrases “industrial facility” and “any other facility” are not further defined in the statute, but “industrial facility” is defined in Treasury Regulations as “a facility, including an electricity generating facility, that produces carbon oxide steam from a fuel combustion source or fuel cell, a manufacturing process or a fugitive carbon oxide emission source that, absent capture and disposal, injection or utilization, would otherwise be released into the atmosphere as industrial emission of greenhouse gas or lead to such release.”⁵

“Carbon capture equipment” is defined quite expansively in the Treasury Regulations, and while it clearly does not include equipment used to transport carbon oxides, it does include equipment used for “separating, purifying, drying, and/or capturing carbon oxide that would otherwise be released into the atmosphere from an industrial facility” or “removing carbon oxide from the atmosphere via direct air capture.”⁶ While this seems fairly clear, the classification of acid gas removal units as carbon capture equipment in Revenue Procedure 2021-13 casts doubt on many items of equipment that could be viewed in some cases as “components of property necessary to compress, treat, process, liquefy, pump or perform some other physical action to capture qualified carbon oxide.”⁷

The concept of a “qualified biogas facility” became relevant when the IRA expanded the definition of “energy property” under Section 48 to include “qualified biogas property” as any property comprising a system that converts or concentrates biomass into a gas that is at least 52% methane and captures the

² Code Section 45Z(d)(4)(B)(iii).

³ Code Section 45Q(b)(1)(C), (b)(2).

⁴ Code Section 45Q(d), 45Q(d)(2)(A)-(C).

⁵ Treas. Reg. Section 1.45Q-2(d).

⁶ Treas. Reg. Section 1.45Q-2(c)(1).

⁷ Treas. Reg. Section 1.45Q-2(c)(2).

resulting gas for sale or productive use (and not for disposal by combustion).⁸ Section 48 allows an election to treat any qualified property that is part of a qualified investment credit facility as energy property.⁹ A “qualified investment credit facility” is defined with reference to Section 45, which specifies that a “qualified facility” does not include any facility that produces electricity from gas produced by qualified biogas property if a credit is allowed under Section 48 for the property for the taxable year or any prior taxable year.¹⁰ Thus, a facility that produces biogas generally includes qualified biogas property.

Biogas is produced by gathering organic materials such as dairy waste, food waste, or crop residues, causing them to ferment in an anaerobic digester tank and then extracting the gas that is produced. Biogas made using anaerobic processes is typically approximately 60% methane; most of the balance of the gas is carbon dioxide. Biogas may then be used for various purposes, or cleaned and conditioned for different purposes. For example, biogas may be combined with hydrogen to produce methanol. Or, the carbon may be removed to convert the biogas into renewable natural gas (“RNG”), which is approximately 96% to 98% methane and suitable for injection into a natural gas pipeline.

A biogas production facility is clearly an industrial facility for purposes of Section 45Q. However, a biogas production facility generally does not emit carbon dioxide (because the biogas can be used commercially without removal of carbon dioxide) or typically include carbon capture equipment within the definition set forth in Treasury Regulations Section 1.45Q-2(c)(1). Thus, equipment included in a biogas production facility is generally not carbon capture equipment because its purpose is not to “separate[e], purify[y], dr[y], and/or captur[e] carbon oxide *that would otherwise be released into the atmosphere from an industrial facility*” (emphasis added). Treasury should recognize that biogas production facilities are the base case for purposes of the intersection of Code Section 45Z and 45Q and recognize that any cleaning and conditioning equipment added to a biogas production facility to make another type of gas or fuel is properly defined as carbon capture equipment *that is not dual use equipment* within the meaning of Revenue Ruling 2021-13.

II. Treasury should interpret the phrase “suitable for use as” in Code Section 45Z(d)(5)(A)(i) broadly.

The 45Z Credit is available in respect of “transportation fuel” with a carbon emissions rate of no more than 50 kilograms of CO₂ equivalent per million BTUs. For purposes of the 45Z Credit, transportation fuel is defined as any fuel that meets the carbon emissions rate requirement, is not derived from co-processing certain materials with biomass and “is *suitable for use as* a fuel in a highway vehicle or aircraft.”¹¹

It is very clear that Congress intended the concept of transportation fuel to be interpreted broadly. First, in both the credit for biodiesel and renewable diesel used as fuel under Code Section 40A and the sustainable aviation fuel credit under Code Section 40B, Congress drafted specific requirements that fuels eligible for such credits must be “used as” a fuel, “sold . . . and placed in the fuel tank” or “sold for use as”

⁸ Code Section 48(a)(3)(A)(x), 48(c)(7).

⁹ Code Section 48(a)(5)(A)(i).

¹⁰ Code Sections 48(a)(5)(C)(i), 45(e)(12).

¹¹ Code Section 45Z(d)(5)(A)(i), emphasis added.

a fuel.¹² The statutory language for both of these credits lacks any reference to suitability and focuses exclusively on actual and intended use. The substitution of the “suitable for use as” language in the 45Z Credit in lieu of the “used or sold for use as” language in Code Sections 40A and 40B indicates a clear intention to decouple the 45Z Credit from the actual or intended use of the resulting fuel. Code Sections 40A and 40B were amended and drafted, respectively, contemporaneously with the 45Z Credit and it is clear that if Congress had intended for the 45Z Credit to be interpreted in the same restrictive manner as the credits in Code Sections 40A and 40B it would have used the same language. Rather, Congress’ choice to create the unique “suitable for use” language employed in the 45Z Credit demonstrates clear intent to broaden the application of the 45Z Credit.

Second, the excise tax credit for alcohol fuel, biodiesel and alternative fuel mixtures under Code Section 6426, like the credits under Code Sections 40A and 40B, also requires that eligible fuels be “sold by the taxpayer ... for use as a fuel” or “used as a fuel by the taxpayer” in order to qualify for the excise tax credit.¹³ As with the credit under Code Section 40A, this credit was amended contemporaneously with the creation of the 45Z Credit and Congress’s choice to draft unique language for the 45Z Credit emphasizing “suitability for use” rather than actual use must be seen as evidence that the 45Z Credit is intended to be available much more broadly than the credits available under Code Sections 40A, 40B or 6426.

Third, in the IRA, Congress described Code Section 45Z transportation fuel as indicative of an energy efficient *furnace* under Code Sections 25C(d)(2)(C) *et. seq.* and 25C(d)(3)(C). Specifically, these provisions together provide that hot water boilers and oil furnaces that use transportation fuel as defined in new Code Section 45Z(d)(5) are eligible for the energy efficient home appliance credit. Given that furnaces are definitely not a mode of transportation, Congress could not have meant that a Code Section 45Z fuel *actually must* be used in any kind of transportation application.

In addition, the plain meaning of “suitable for use” is that something *may* be used for a particular purpose, but not at the exclusion of other use cases, as pointed out by Senator Wyden on the floor of the Senate prior to the Senate vote on the IRA.¹⁴ Fuels that are “suitable for use” in highway vehicles or aircraft are often equally useful in many other applications. For example, while natural gas is suitable for use as a fuel for on-highway vehicles, it is also widely used in other applications such as home heating, cooking and even residential standby power generation. While ammonia is suitable for use as a fuel that powers a maritime vessel, it may also be burned in an industrial furnace or spread on fields as a fertilizer. Crucially, *the chemical composition of these fuels is the same regardless of the use case*. Thus, just because a fuel is suitable for use in one application does not mean that it should not or may not be used in any other application. This interpretation is consistent with the Congressional intent expressed by Senator Wyden: “The credit is intended to incentivize production of biofuels of a certain quality, usable as fuel for highway vehicles or aircrafts, but not limited only to fuels which are actually used in highway vehicles or aircrafts.”¹⁵

As such, Treasury should interpret the “suitable for use” requirement as meaning only that the fuel be of a type that may be used in a transportation application. Such an interpretation will dramatically increase

¹² Code Sections 40A(b)(1)(B), (b)(2)(A), and 40B(c)(2), respectively.

¹³ Code Section 6426(c)(3)(A) and (B), respectively.

¹⁴ 168 Cong. Rec. S4165, S4166 (Aug. 6, 2022).

¹⁵ *Id.*

the adoption of clean fuels in transportation and other applications such as the very difficult to decarbonize industrial sector. Taken together, this would serve the Biden Administration’s intention that the IRA immediately lead America’s fight against climate change *this decade*.

III. Treasury should provide clear and predictable guidelines for emissions rates for both Code Section 45Z and 45V and permit taxpayers to obtain a facility-specific emissions rate.

A. Applicable law

Code Section 45Z(b)(1)(B)(i) and (ii) requires that Treasury publish annual emissions rate tables for “similar types and categories of transportation fuels” based on lifecycle greenhouse gas (“GHG”) emissions for those fuels, with the emissions rates for fuels other than sustainable aviation fuels being determined under the Greenhouse gases, Regulated Emissions, and Energy use in Transportation model developed by Argonne National Laboratory (“Argonne GREET”) or a successor model. If an emissions rate has not been established by Treasury for any transportation fuel, a taxpayer producing such fuel may file a petition for determination of the emissions rate with respect to such fuel.¹⁶

Section 45V also specifies that the amount of U.S. federal income tax credit available in respect of hydrogen produced is based on the most recent Argonne GREET or a successor model, but does not specify that Treasury publish a table of emissions rates. Similar to Section 45Z, if an emissions rate has not been determined for any hydrogen, a taxpayer producing such hydrogen may file a petition for determination of the emissions rate with respect to such hydrogen.¹⁷

B. Treasury should use Argonne GREET scores only as default scores

The Argonne GREET provides certain pro forma scores based on specific types of energy production pathways. These scores are based on generalized data and do not reflect the emissions produced by any one facility. In practice, before a fuel production facility begins operating, it obtains an estimated emissions score based on specific expected characteristics of the facility and a model derived from GREET. After the facility begins operating, it then reruns that analysis using inputs based on operations and then obtains certification of its score. Thereafter, the facility is reanalyzed and recertified annually.

Therefore, in the context of Code Sections 45Z and 45V, the Argonne GREET score for a particular pathway is best viewed as a default score for a facility that produces fuel or hydrogen that may qualify for the Code Section 45Z credit or Code Section 45V credit, respectively. Using a default score serves a purpose in that it provides some confidence about how much tax credits will be produced by a particular facility. This is useful when projecting future performance and capital needs. However, the Argonne GREET score for a particular pathway is often disconnected from reality because of the generalized assumptions that are made in calculating the model score for a pathway.

NE urges Treasury to utilize Argonne GREET scores only as defaults.

In the context of Code Section 45Z, NE suggests that the Argonne GREET scores for pathways that lend themselves to the production of fuel that is suitable for use in transportation be used to create an

¹⁶ Code Section 45Z(b)(1)(D).

¹⁷ Code Section 45V(c)(2)(C).

emissions rate table that applies as of January 1 of each year in which the credit is available (the scores listed on such table, the “Default 45Z Rate”). The default score for each year should be based on the Argonne GREET score that was published most recently before the annual effective date. Further, NE suggests that the Default 45Z Rate available at the time that a facility begins construction¹⁸ be the default rate for fuel produced by that facility. For any facility that begins construction prior to January 1, 2025, NE suggests that Treasury publish guidance stating that the Argonne GREET score for the relevant pathway that was available on the day on which a facility began construction will be the Default 45Z Rate for such facility.

In the context of Code Section 45V, NE suggests that the most recent Argonne GREET score published for hydrogen pathways be used as default scores for hydrogen production facilities, in each based on the beginning of construction date for that facility.

C. Treasury should permit taxpayers to obtain a facility-specific GHG score

Neither Code Section 45Z nor Code Section 45V prohibits Treasury from permitting a taxpayer to use a GHG rating for a facility and such a process is within Treasury’s authority to issue guidance interpreting these provisions. Moreover, Treasury will have the tools to evaluate facility-specific ratings because Code Sections 45V(c)(2)(C) and 45Z(b)(1)(D) permit taxpayers to petition Treasury for an emissions rating when a lifecycle GHG emissions rate has not otherwise been determined with respect to a facility.

Moreover, Treasury does not have to deviate from GHG emissions ratings under the Argonne GREET or a successor model to permit taxpayers to obtain a facility-specific rating. As discussed above, both the low-carbon fuels industry and the hydrogen industry currently use iterations of the Argonne GREET model to create estimated ratings for fuels produced by a specific facility and use the same models to obtain a rating for each such facility based on operations. Both the estimates and the ratings based on operations are obtained on a facility-specific basis *and* verified by independent third parties.

Accordingly, NE strongly suggests that Treasury publish in guidance a process by which a taxpayer may obtain a facility-specific score for a Code Section 45Z or 45V qualified facility, as applicable, by taking two steps:

1. No later than the placement in service date of the qualified facility, submitting an estimated emissions rating for such facility, provided that the estimate must be created using a method derived from a recognized GREET model such as the modified Argonne GREET model, the California GREET 3.0 model or the California Simplified Models, or similar tools used in other states that have a GREET-derived model (each, a “Recognized GREET Method”) and verified by an independent third-party; and
2. No later than the last day on which a tax return must be filed (after accounting for extensions) for the tax year in which the facility was placed in service, submitting an independently audited, third-party facility-specific emissions rating using a Recognized GREET Method with an accompanying audit report.

¹⁸ For this purpose, beginning of construction should have the meaning set forth in Notice

By using Argonne GREET model scores as defaults, but allowing taxpayers to utilize existing, recognized processes for verifying the GHG emissions of a facility using methods derived from Argonne GREET, Treasury will significantly reduce the administrative burden on itself and taxpayers, while also significantly increasing the impact of clean fuels and hydrogen on the American economy and fight against climate change.

IV. Treasury should interpret the phrase “gallon equivalent” in a manner that is consistent with the existing equivalence values promulgated by the Environmental Protection Agency (“EPA”) as part of its Renewable Fuel Standard (“RFS”).

The 45Z Credit specifies in Code Section 45Z(a)(1) that the amount of the credit is calculated by multiplying the applicable per gallon (or gallon equivalent) credit amount by the number of gallons (or gallon equivalents) sold and then multiplying that result by an emissions rate determined annually by Treasury. The statute is silent with respect to the reference fuel used to determine the energy content of a “gallon equivalent” for purposes of the 45Z Credit. Congress’s decision to leave the reference fuel unspecified appears to be deliberate given that all other references to a “gallon equivalent” contained in the Code also include a specific reference fuel¹⁹ and many of these other Code sections, including the portions defining reference fuels, were revised contemporaneously with the creation of the 45Z Credit as part of the IRA.

By leaving the reference fuel for the 45Z Credit undefined, Congress implicitly granted Treasury wide latitude in the administration of the 45Z Credit. Essentially, Treasury has been given the power to expand or restrict the amount of credit available based upon the reference fuel it chooses when defining a “gallon equivalent.” For example, diesel fuel has an energy density of approximately 128,488 Btu/gallon while ethanol has an energy density of approximately 76,330 Btu/gallon.²⁰ However, neither diesel nor ethanol is an appropriate reference fuel. While biodiesel is available and ethanol is derived from biomass, neither reflects the public policy goals of Congress and the White House to support the creation of a robust U.S. biofuels market. In addition, the large variation in the Btu/gallon measurements in fuels will be problematic and may benefit certain fuels unfairly relative to others. Rather than reflexively use a reference fuel that would not apply to many, or perhaps most of the fuels that may qualify for the 45Z Credit, we strongly suggest that Treasury consult with Department of Energy and the EPA to determine an appropriate reference fuel for purposes of converting MMBtus to gallon equivalents for the variety of fuels that may qualify.

Treasury should use the discretion intentionally given to it when Congress drafted the 45Z Credit to increase the effects of this credit by promulgating guidance congruent with that issued by the EPA as part

¹⁹ For example, Code Section 30B(c)(2)(A)(ii) specifies the use of a “gasoline gallon equivalent,” Code Section 6426(b)(4)(A) specifies an “alcohol gallon equivalent,” and Code Sections 6426(j)(1) and (2) specify gasoline and diesel as reference fuels, respectively.

²⁰ Alternative Fuels Data Center Fuel Properties Comparison, U.S. Dept. of Energy, last accessed Nov. 16, 2022, https://afdc.energy.gov/files/u/publication/fuel_comparison_chart.pdf.

of its RFS program and defining gallon equivalents by reference to ethanol.²¹ By interpreting the phrase “gallon equivalent” as referring to an ethanol gallon equivalent and thereby effectively increasing the available credit amount, Treasury would increase the incentive for taxpayers to produce clean RNG and accelerate the use of RNG to displace higher emissions fuels derived from nonrenewable sources that generate higher lifecycle greenhouse gas emissions compared to RNG.

V. Treasury should clearly state that multiple facilities that are used for different processes, but owned by the same taxpayer will be treated as separate facilities.

As noted above, neither the 45Z Credit nor the 45V Credit contain any statutory provisions precluding downstream purchasers of 45Z Fuel or hydrogen from claiming any other credits for which such downstream purchasers’ use of such fuel or hydrogen would otherwise be eligible. Importantly, the statutes are similarly silent with respect to the ability of a taxpayer to own multiple facilities while treating each facility separately for purposes of determining eligibility for various tax credits. For example, a taxpayer that owns a biogas facility that produces a 45Z Fuel and then uses the waste carbon dioxide (“CO₂”) from the biogas process in a separate methanation facility that combines CO₂ with hydrogen to produce e-methane should be able to claim the 45Z Credit with respect to *both* the biogas facility and the methanation facility. Similarly, a taxpayer that owns both an electrolysis facility and a methanation facility should be able to claim *both* the Section 45V credit with respect to the hydrogen generated by the electrolysis facility *and* the 45Z Credit with respect to the e-methane produced at the methanation facility even if the hydrogen used in the methanation facility is obtained from the taxpayer’s own electrolysis facility.

These claims are supported by the plain language of both credits. First, the Code Section 45V credit expressly allows a taxpayer to take the credit with respect to otherwise qualified hydrogen even if such hydrogen is used by the same taxpayer in a trade or business.²² Moreover, the Code Section 45V credit applies to the production of hydrogen as opposed to any property resulting from further processing of that hydrogen. Second, the 45Z Credit is broadly available to any facility used to produce transportation fuels without regard to the source of such facility’s base feedstock. It is clear from generally applicable law that if taxpayer A owned an electrolysis facility and sold hydrogen to taxpayer B who then used the hydrogen for the production of e-methane in a methanation facility, taxpayer A would be entitled to claim a 45V Credit for the hydrogen and taxpayer B would be entitled to claim a 45Z Credit for the e-methane. If both facilities in the preceding example were owned by taxpayer A, the treatment should not change for the reasons stated above.

In addition to being unsupported by the plain language of the statutes, treating multiple, separate facilities as a single facility merely because they are owned by the same taxpayer would create false incentives to

²¹ 40 C.F.R. § 80.1415(b)(5), “77,000 Btu (lower heating value) of compressed natural gas (CNG) or liquefied natural gas (LNG) shall represent one gallon of renewable fuel.” Note that for convenience of calculation the EPA has rounded the Btu/gal equivalent value to 77,000 Btu instead of the 76,330 Btu/gal value noted in the fuel properties comparison chart published by the U.S. Dept. of Energy.

²² Code Section 45V(c)(2)(B)(i)(III), requiring that otherwise qualified clean hydrogen must be produced “for sale or use” while imposing no restrictions with respect to how such qualified clean hydrogen is used (emphasis added).

structure property ownership and commodity transactions. Treating multiple facilities owned by the same taxpayer as separate facilities for purposes of the 45V Credit and 45Z Credit simply maintains an even playing field for all facilities regardless of ownership and avoids encouraging taxpayers to devise complex and economically wasteful ownership structures to avoid a tax disadvantage not intended by Congress.

For the above reasons, NE encourages Treasury to provide unambiguous guidance indicating that a taxpayer may treat groups of property as individual facilities based on the functionality of that property. While this is relevant to the 45V and 45Z Credits, it may also be relevant in other circumstances, particularly as clean energy technology continues to advance. Nonetheless, because of the potential for hydrogen to be further processed into fuels that are suitable for use as a transportation fuel, it is particularly important to draw a clear distinction in this case. Treasury should provide a clear statement that this prohibition should be read as prohibiting a taxpayer from taking both the 45V and 45Z Credits with respect to molecules of *hydrogen*, not as prohibiting a taxpayer's use of hydrogen for which the 45V Credit has been allowed in the production of a 45Z Fuel when such hydrogen is produced by the taxpayer at a facility that produces hydrogen.

VI. Treasury should provide unambiguous reassurance that downstream users of qualified transportation fuel for which the Section 45Z credit has been claimed may also claim other credits for which they are otherwise eligible.

Under Section 45Z(d)(4)(B), the term "qualified facility" does not include any facility for which a credit under Sections 45V and 45Q is "*allowed*." The distinction between the terms "allowable" and "allowed" is significant when determining whether a taxpayer may claim certain credits. It is important to stress that "allowable" means that there is a possibility that a credit can be claimed (even if a taxpayer has not done so), while "allowed" means that a taxpayer has actually claimed a credit and IRS has *allowed* the credit to offset the taxpayer's tax liability. Thus, a taxpayer may not claim Code Section 45Z credits in respect of a facility for which the taxpayer has claimed a Section 45V or 45Q credit.

Although Code Section 45Z(d)(4)(B) sets forth limited circumstances under which the 45Z Credit is not available for certain clean hydrogen production and carbon oxide sequestration facilities, there is no provision in the Code that would preclude downstream purchasers of fuel for which the producer claimed a 45Z Credit ("45Z Fuel") from claiming other renewable energy credits for which such downstream purchaser's use of the fuel may qualify. For example, there are no statutory provisions that would prevent a taxpayer from taking the clean electricity investment credit under Code Section 48E simply because the facility for which the credit under Section 48E was claimed used 45Z Fuel. Nor is there a statutory provision that would prevent a taxpayer from taking the Code Section 45V credit in respect of hydrogen produced using 45Z Fuel purchased from an unrelated person.

NE requests Treasury include clear and unambiguous guidance stating that the use of 45Z Fuels will not preclude a taxpayer from claiming any federal income tax credit for which such taxpayer would otherwise be eligible. NE further encourages Treasury to honor the plain language of the 45Z Credit and impose only such requirements on downstream users of 45Z Fuels as are required to prevent abuse. For example, NE agrees that downstream producers should not be permitted to merely re-sell 45Z Fuels and claim a new 45Z Credit. However, NE encourages Treasury to recognize that downstream producers using 45Z Fuels in

the *production of other fuels* for which the 45Z Credit is generally available should be permitted to claim the 45Z Credit in respect of such fuels. Providing clear guidance to this effect will reassure the potential market for 45Z Fuels and will encourage American businesses to choose clean fuels before fossil fuels. Without such guidance, uncertainty with respect to downstream credit availability will suppress the market for clean fuels and slow the adoption of green energy alternatives.

VII. Treasury should clarify that taxpayers electing to transfer a carbon oxide sequestration credit under Code Sections 45Q(f)(3)(B) or 6418 will not be disqualified from claiming the Section 45Z credit.

Code Section 45Q(f)(3)(B) allows the owner of carbon capture equipment to transfer credits available under Code Section 45Q (the “45Q Credit”) to a third party that disposes of the qualified carbon oxide in secure geological storage, utilizes it, or uses it as a tertiary injectant.²³ When such an election is made, the 45Q Credit ceases to be allowable *to the owner of the carbon capture equipment*.²⁴

Code Section 45Z(d)(4)(B)(iii) excludes from the definition of qualified facility any *facility for which the 45Q Credit is allowed* (“45Q Facilities”). As discussed above, the 45Q Credit is generally allowed in respect of carbon captured by carbon capture equipment installed at a qualified facility (e.g., an industrial facility). Treasury Regulations Section 1.45Q-2(c) defines carbon capture equipment as including “all components of property that are used to capture or process carbon oxide *until* the carbon oxide is transported for disposal, injection, or utilization.” (Emphasis added.) Thus, equipment used for utilization, secure geological storage, or use of carbon as a tertiary injectant generally does not constitute carbon capture equipment. Ergo, when a Code Section 45Q(f)(3)(B) election is made by a person that owns carbon capture equipment installed at a 45Z Facility, it is impossible for that 45Z Facility to be a facility for which a 45Q Credit has been allowed because there is no carbon capture equipment for which the 45Q Credit is allowed. Rather, the 45Q Credit is allowed in respect of equipment that is used to utilize the carbon, use it as a tertiary injectant, or dispose of it in secure geological storage.

This point is even clearer in Code Section 45V(d)(2), which states: “No credit shall be allowed under this section with respect to any qualified clean hydrogen *produced at a facility which includes carbon capture equipment for which a credit is allowed* to any taxpayer under section 45Q.” (Emphasis added.)

We suggest that Treasury compare the text of Code Section 45Q(f)(3)(B) with that of Code Section 6418. Code Section 6418 permits a person (not described in Code Section 6417(d)(1)(A)) who is entitled to claim a Code Section 45Q Credit *for any reason* to transfer that credit to an unrelated person in exchange for cash. When this election is made, the transferee will not be permitted to also claim the transferred 45Q Credit.²⁵ However, Code Section 6418 materially varies from Code Section 45Q(f)(3) in many ways, for

²³ Code Section 45Q(f)(3)(B)(i).

²⁴ Code Section 45Q(f)(3)(B)(ii).

²⁵ Code Section 6418(a) (stating that the facility’s owner ceases to be treated as the taxpayer for purposes of the transferred credit).

example, by requiring cash in exchange for credits and being generally available to any taxable person that is otherwise entitled to claim an eligible credit. The two provisions simply are not the same.

Accordingly, NE requests that Treasury publish guidance stating that when a person to whom a 45Q Credit is attributable pursuant to Code Section 45Q(f)(3)(A) elects to transfer that credit pursuant to Code Section 45Q(f)(3)(B) to a person that does not own any carbon capture equipment, neither Code Section 45Z(d)(4)(B)(iii) nor Code Section 45V(d)(2) applies to bar the owner of a 45Z Facility or Code Section 45V facility, respectively, from claiming the 45Z or 45V Credit, as applicable.

VIII. Treasury should unambiguously state that the location of a transportation fuel’s use will not impact the availability of the Section 45V or 45Z credit.

No statutory provision limits eligibility for either the 45V or 45Z Credit to hydrogen or fuel, respectively, that is used within any specific geographic boundary, instead restricting availability of the 45V and 45Z Credits to hydrogen and fuel that “is *produced in* the United States.”²⁶ This choice evidences an intent to use the 45V and 45Z Credits as means to encourage domestic production of clean fuels in the interest of encouraging U.S. energy independence and energy exports. Issuing clear and unambiguous guidance expressly stating that the location of hydrogen or fuel’s use will not be taken into account when determining whether the 45V or 45Z Credit may be claimed with respect to such fuel is not only consistent with the statutory language of Code Sections 45V and 45Z, but also furthers the clear Congressional and executive goal of increasing domestic production of clean fuel.

IX. Treasury should expedite the release of guidance relating to the Section 45Z and Section 45V credits.

Finally, establishing certainty with respect to the 45V and 45Z Credits is *critical* for building facilities that produce fuels now. These credits are perhaps the most important because they are very short term. In order to encourage increased clean hydrogen and clean fuel production, facilities that will produce the hydrogen and fuels that qualify for the 45V and 45Z Credits must be built *now*. Financing these facilities requires certainty about the tax credits that will arise from their operation. For example, the expected economic return for a biogas facility that intends to qualify for the energy credit under Code Section 48, for example, could vary significantly depending on how the 45Z Credit operates in respect of the RNG produced by the facility and how the 45V Credit operates in respect of the hydrogen that may be produced by a third party using that RNG. This variance may be the difference between building a new biogas production facility to capture methane from agricultural waste or wastewater or crop residues and allowing those sources to continue to emit methane and other dangerous greenhouse gases into the atmosphere.


It is critically important that Treasury join the other executive agencies that are making so many strides in the fight against climate change by providing practical and administrable guidance under Code Sections 45Z and 45V *as swiftly as possible*.

²⁶ Code Sections 45V(c)(2)(B)(i) and 45Z(f)(1)(A)(ii), emphasis added.

Conclusion

Nature appreciates the opportunity to communicate these points to Treasury in advance of the release of guidance interpreting the new tax credits enacted as part of the IRA and looks forward to continuing to work with the Treasury and IRS on implementation of this historic investment in the production of clean renewable fuels. In the event you have any questions or would like to discuss any of the points raised herein, please contact Nature's Principal U.S. Counsel, Ted Cadwell, at teca@nature-energy.com.

Sincerely,

DocuSigned by:

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Gaurav Parikh

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